



SEBASTIAN RIVER IMPROVEMENT DISTRICT

Indian River County, Florida

PERMIT INFORMATION and CRITERIA MANUAL FOR USE OF OR CONNECTION TO WORKS OF THE DISTRICT

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SECTION 1

A. INTRODUCTION

The purpose of this *Permit Information and Criteria Manual for Use of or Connection to Works of the District* (“Manual”) is to provide information describing the criteria and permitting requirements relating to the utilization of, and connection to, the works of the Sebastian River Improvement District (“District”).

This Manual should be used by permit applicants to prepare permit applications. It will be used as a guideline by the District staff to evaluate applications and proposals for permits. The criteria and requirements contained herein are subject to change, without notice, by the Board of Supervisors (“Board”) of the District.

All projects within the District’s boundaries or those which may utilize District works (i.e. Lateral D), regardless of size, location, direct or indirect connections, require review and permitting and/or authorization by the District.

All waters discharged into the District’s canal systems shall meet water quality standards in accordance with laws and/or rules of: the State of Florida; the Federal Government; and the St. Johns River Water Management District (SJRWMD).

As applicable and in matters largely governing in-kind replacements or renovations to existing facilities, the Board may waive strict application of the criteria appearing in this Manual when such action is determined to be in the best interest of the District and general public, consistent with the objectives of the District.

B. DISTRICT POWERS AND RESPONSIBILITIES

The District is organized and exists under Chapters 189 and 298, F.S. In the context of this Manual, it is primarily responsible for drainage, flood control and protection, water management, and operation and maintenance of District works of improvement and rights-of-way (ROW) within the District boundaries. The rights of the District are paramount.

The primary function of the District is to control water within its boundaries with respect to drainage in times of excess water, and a secondary function is consideration of irrigation supply source at times. The District maintains the dikes, main canals, lateral canals, and water control gates as shown in the Water Control Plan.

All District land owners’ having legal access to District surface waters have a right discharge water into the District’s canals and laterals provided that these activities are conducted in accordance with the regulations established and adopted by the District’s Board of Supervisors. As the designated agent of the Board, the District Administrator and/or District Engineer are authorized to promulgate, implement, and enforce the regulations adopted by the Board, unless specified otherwise in the regulations.

The District, through the advice of its engineer, makes an effort to maintain a water level in its canals and laterals at an average elevation to best serve the needs of its land owners. Any

landowner desiring a different water table or elevation of water within the boundaries of the land owners' property different from that maintained in the laterals and canals of the District is responsible for constructing and maintaining such culverts or other controls to meet internal needs. It is recognized that it is impossible at all times to maintain water levels in the District canals and laterals which will suit the needs of every landowner served without auxiliary control by the landowner to provide for their specific internal requirements.

Land owners' and others are to apply for and receive a permit from the District's Board of Supervisors for the construction of any culverts, pumps or other facilities on District rights of ways or into the rights of way for any purpose so the District can maintain uniform control of its facilities.

Best Management Practices

The District recognizes and supports various Best Management Practices (BMP's) adopted by the Florida Department of Agriculture and Consumer Services (FDACS), the United States Department of Agriculture's Natural Resources Conservation Service (USDA-NRCS), and the Indian River Citrus League (IRCL).

Land owners' are encouraged to implement BMP's to accomplish effective environmental management through a total systems approach centered on water management, water quality, and water supply. The BMP philosophy represents the everyday working goal of the District and is promoted continually. BMP program elements include a wide range of applications including weed barriers, disease control, side slope rehabilitation/stabilization, shoal removal, vegetation/sediment trapping and removal, biological control and physical structure rehabilitation and/or replacement.

Water Quality Standards

The District currently has a quarterly water sampling program. Based on the results of these tests the District has good quality water. Permittees shall not discharge any pollutants, contaminants or deleterious materials into waters or structures owned or maintained by, or subject to the jurisdiction of the SRID. Off-site discharges from the project into SRID water bodies shall meet or exceed current or future Federal and State Water Quality Standards.

C. DISTRICT CHARACTERISTICS

1. District Limits

The District maintenance assessment (taxing) area encompasses all or portions of Sections 29-32 of Township 31 South, Range 39 East, Sections 1– 2, 11 – 14, 23 – 26, and 35 – 36 of Township 32 South, Range 38 East, and Sections 25 – 26, and 35 – 36 of Township 31 South, Range 38 East, all lying within Indian River County. The District is generally bounded by the southerly limits of the Sebastian Highlands development to the north, 90th Avenue to the west, 26th Street to the south and 74th Avenue to the east south of 77th Street, and a half of a mile east of 66th Avenue north of 77th Street.

2. Existing District Facilities

Drainage Facilities

The original Plan of Reclamation was developed in the early 1900's and resulted in the construction of a network of perimeter dikes, canals, laterals and sub-laterals. The overall District watershed includes 10,654 acres of land primarily used for Agriculture. The system includes east-west sublateral ditches approximately ½ mile on center. Due to the naturally occurring 10 mile ridge (I-95) west of the District, the land generally slopes from west to east and outfalls north into the St. Sebastian River. Generally Lateral "C" drains approximately 10.5 square miles. The drainage area includes (approximately 7.5 square miles) west of Lateral "C" which drains east via sub-laterals, together with the west half of the sections lying between Lateral "C" and Lateral "L" (approximately 3.5 square miles) which drain west to Lateral "C" then flows north to the radial gate structure north of C.R. 510. Likewise, the east section (approximately 3.5 square miles) drains into Lateral "L" which flows north to the radial gate structure just south of C.R. 510. An area located in the north east region drains west via sub-laterals to Lateral "L" Bypass Canal and discharges into a natural slough area and then flows north into the St. Sebastian River. All three (3) collector laterals converge in the St. Sebastian River approximately 1300 LF north of the Lateral C gate structure. In addition to the convergence of the District's canal system, additional water enters the District's flood plain in this area via the Elcam waterway (Sebastian Highlands), and the Lateral D watershed, (lying west of the District's west boundary).

Water Control

The District owns, operates and maintains both gate structures which serve as the ultimate outfalls for the District's stormwater. The Lateral "C" structure consists of three radial gates; the Lateral "L" structure consists of two radial gates.

The District does not own or maintain any culverts, except the control structure in the Lateral L bypass. However, the District maintains the rights to access, modify, remove, replace, (or in some cases not replace), and operate the gravity connection culverts that allow lands within the District boundary to drain to the lateral ditch system should the land owner be non-compliant with the operation and maintenance requirements of the District.

Drainage Laterals

The District's two main flow ways run south to north, ultimately draining into the St. Sebastian River via a low-lying wetland north of C.R. 510. Lateral "C" and Lateral "L" flow alongside 82nd avenue and 74th avenue, respectively. The water elevation in these laterals is controlled by the two radial gate discharge structures, as mentioned above. Tributary to the two main laterals is a series of 30 sublaterals which run west to east and drain into their respective laterals via land owner culverts. The laterals are numbered 1 to 15 from north to south with the suffix "E" for lateral "L" and "W" for lateral "C", (i.e. C13W/C13E). Sublaterals R-12E, R-13E, and R-14E drain the north east section of the District. R-12E discharges downstream of the Lateral L control structure. R-13E and R-14E drain into Lateral L upstream of the Lateral L radial gate structure. Due to development and other factors, not all sublaterals are currently maintained by the District, as shown in Exhibit VII.

Irrigation Facilities

The District neither owns nor manages irrigation facilities. The District does not manage specific irrigation availability nor allocates water use from the District laterals or sub-laterals. All District land owners' having legal access to District surface waters have equal opportunity to access such waters for irrigation, when available. All facilities for irrigation shall be installed, operated and maintained by individual land owners' and shall remain private. The District makes no guarantee of the water volume available for irrigation at any time. Land owners may install, after District permit authorization, private irrigation systems connecting to District Works in accordance with this Permit Manual and associated Exhibits.

Private Irrigation Systems existing at the time of acceptance of this Permit Manual by the District Board shall be considered "grandfathered in" and may continue to operate as constructed until such time as they are: 1) abandoned by the Owner for a period of 3 years or more; or 2) proposed for upgrade by the Owner, in either case, subsequent construction on the System shall bring the existing System into compliance with current Permit Manual/Exhibit requirements.

It is important to note that the District favors and employs water conservation practices such that irrigation water may be made available, so long as appropriate drainage is maintained. To that end, in times of a shortage of water, the District shall attempt to maintain a maximum volume of water within the laterals and sub-laterals, using current water control facilities. In this manner, the District can utilize irrigation water to its fullest and best use based on the limitations of the District's water management capabilities.

SECTION 2

RULES FOR USE OF OR CONNECTION TO WORKS OF THE DISTRICT

A. **Permits Required or Authorization**

No utility or other improvement shall be constructed across, under, along or within a canal or right-of-way over which the District has jurisdiction, nor shall any use whatsoever occur within a District right-of-way or easement, unless a valid application for a construction or use permit has been approved and issued by the District. No land alteration or site development altering the quantity and quality of surface water runoff for any property within the jurisdictional limits of the District shall occur unless a valid permit application has been reviewed and approved by the District.

The permit application process consists of two parts which both require District approval; authorization for construction and inspection/project certification. Upon District approval of the application submittal, the applicant will receive a permit, or, at the Board of Supervisor's discretion, a Letter of No Objection for construction authorization. After construction is complete, the applicant shall complete the Inspection/Project Certification requirements outlined below for the permit process to be deemed complete. In the case of an emergency, authorization (written if practical) may be given by the Administrator or District Engineer as per Board delegation.

Any proposed use, crossing, or connection to works of the District shall not inhibit maintenance of the canal system. Easements may be required to facilitate uninterrupted maintenance access to the works of the District. Alternative arrangements for maintenance at the full expense of the project applicant may be considered at the Board's discretion on a case-by-case basis.

A map showing the general location of the District's rights-of-ways may be acquired from the District Administrator's office.

The provisions Regarding the 2 Inch Standard for Stormwater Drainage in the June 1, 2015 Permit Information and Criteria Manual for Use of or Connection to Work of the District only Applies to Properties within the Boundaries of SRID.

B. **Permit Fees**

Permit applications shall be accompanied by the required fees. An application will be considered or reviewed only after the application is completed and signed, and the required fees are submitted. A separate permit application and fee are required for each individual canal affected by the proposed activity. The permit process and application can also be found on the District's web site www.srid-fl.com

C. **Inspection / Project Certification**

Any utility or other improvement constructed under a valid permit shall be subject to inspection by the District to assure compliance with the terms of the permit before use of the utility or improvement will be allowed.

Additionally, within 30 days after completion of the permitted activity, the Applicant / Permittee shall submit notice of completion to the District for approval. Unless otherwise specified by the District, this shall consist of a written, signed, and sealed statement of

completion, certification by a currently registered Florida Professional Engineer, and two (2) complete sets of final “Record Drawings”, signed and sealed by the project Engineer of Record or a currently licensed Florida surveyor. These statements must specify the actual date of construction completion and must certify that all improvements have been constructed in substantial conformance with the plans and specifications approved by the District and will function as intended and designed. If deviations from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. All planned dimensions, pipe sizes, pipe lengths, pipe inverts, control structure weir size and crest elevations, stormwater management storage areas, etc. shall be surveyed and certified.

D. Pre-Application Meeting

Every applicant is encouraged to contact the District staff prior to preparing an application for District review and evaluation. The staff can offer assistance in providing information and answering questions.

For applications embracing large, complex projects, the District requires a pre-application meeting to discuss criteria and other requirements. This is particularly true for the connection of new drainage and irrigation facilities, and for bridge crossings.

A permit application checklist may be obtained from the District office or the District’s website.

E. Pre-Construction Meeting

For large or complex projects, a pre-construction meeting is required as determined by the District.

F. Permit Application Requirements

Permit application forms may be obtained from the District office or the District’s website. The application form must be signed by the owner of the private property to be served by the proposed work or improvement, or by the authorized representative of a utility of governmental agency requesting a permit. Supporting documentation must be provided demonstrating authorization to obtain permits on behalf of, or for improvements which will be maintained by, a governmental agency, or from an agent authorized to obtain permits on behalf of a private owner.

Depending upon the nature and extent of the proposed project, the submittal of certain maps, drawings, calculations and engineering details sufficient to define the nature, scope, intent and function of the proposed activity may be required to support the application. These supporting documents may include, but are not limited to:

1. Project location and area, in acres, to be served by the proposed improvement. Include section, township, and range; canal number; and location within the canal right-of-way related to some known and identifiable feature.
2. Whether the proposed use is a new installation, a modification of an existing improvement, or a replacement of existing works.

3. A description of the proposed use of, or encroachment on, works of the District.
4. A description of the portion of the works of the District to be used.
5. Two copies of full-size construction plans and specifications reflecting the proposed use in plan and elevation views, and as related to the applicable works of the District. The plans provided shall be signed and sealed by the Engineer of Record and shall clearly indicate the project design datum (NGVD-29 or NAVD-88).
6. Two copies of boundary and topographic survey information signed and sealed, for the project area and adjacent canal right-of-way.
7. If available, drawings in electronic format such as AutoCAD or Portable Document Format (pdf).
8. As appropriate, supporting calculations signed and sealed by the Engineer of Record, demonstrating that the proposed improvements meet all applicable District criteria.
9. Any proposed improvement which may alter the natural groundwater gradient to a District canal, including but not limited to excavations or water impoundments, shall submit a seepage analysis demonstrating that the proposed improvement will not adversely impact the stability of the adjoining canal bank.
10. Proposed project drainage calculations shall address the 2"/day maximum allowable discharge volume requirement for any 24 hour period during a 25 year – 24 hour event. The design engineer shall coordinate with the District Engineer on the tail water time vs. stage relationship.
11. Proposed project drainage calculations shall address the maintenance of flood plain storage. Cut and fill calculations demonstrating that compensating storage volume is being created to offset and proposed fill in the flood plain shall be prepared by the design engineer registered and currently licensed to practice Civil Engineering in the State of Florida. The existing conditions shall be based on a topographic survey prepared and signed and sealed by a Surveyor registered and currently licensed to practice in the State of Florida.
12. SRID will require a bond for any proposed use of the District's right-of-way to provide assurance that the District's lands are properly restored at the completion of the proposed project.

Land owners' enrolled in BMP programs for water control with FDACS, USDA-NRCS, or IRCL are encouraged to submit their plans as part of the supporting documentation to a permit application. On a case by case basis and at the discretion of the Board, the District may accept supporting documents prepared for adopted BMP's or Conservation Plans in lieu of permit submittal requirements.

Insufficient or unclear drawings shall result in the return of an application without action by the District. Inadequate re-submittals which do not fully address the District's request for information may also be returned without action by the District.

G. Financial Responsibility

Financial responsibility for all connections and or a proposed improvement is the responsibility of the District landowner as the applicant requesting such actions.

H. Installation and Maintenance Responsibility

Installation and maintenance responsibility for the use of, or construction of facilities, in, on, over or under District rights-of-way shall be that of the Permittee or the entity identified in the permit. The acceptance of the SRID permit provides the District the right to enter the permitted property and inspect such facilities to determine their capability to provide effective stormwater management in accordance with the District permit. Failure of the applicant to maintain the facilities will result in the District correcting such matters as deemed applicable and the billings of these remedial actions to the responsible party at a rate of costs plus twenty percent. Failure to maintain the permitted use or works may result in the revocation of the permit, and at the District's sole discretion, the removal of the crossing, connection, or use.

I. Obstruction of District Right of Way/Property

The obstruction of District right-of-way/property by the placement of, but not limited to, materials; equipment; buildings; debris, is a violation of Florida Statutes as noted in 298.66,

<u>Title XXI</u>	<u>Chapter 298</u>
DRAINAGE	DRAINAGE AND WATER CONTROL

298.66 Obstruction of public drainage canals, etc., prohibited; damages; penalties. –

- (1) A person may not willfully, or otherwise, obstruct any public canal, drain, ditch or watercourse or damage or destroy any public drainage works constructed in or maintained by any district.
- (2) Any person who willfully obstructs any public canal, drain, ditch or watercourse or damage or destroys any public drainage works constructed in or maintained by any district shall be liable to any person injured thereby for the full amount of the injury occasioned to any land or crops or other property by reason of such misconduct and shall be liable to the district constructing the drainage work for double the cost of removing such obstruction or repairing such damage.
- (3) Any person who willfully, or otherwise, obstructs any public canal, drain, ditch, or watercourse, impedes or obstructs the flow of water therein, or damages or destroys any public drainage works constructed in or maintained by any district, commits a felony of the third degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084.

History. – s. 5, ch. 6190, 1922; s. 52, ch. 6458, 1913; RGS 5293, 5294; ss.1-3, ch. 10110, 1925; CGL 1518, 1519, 7413-7415; s. 163, ch. 71-136; s. 28, ch 79-5; s. 48, ch. 2010-205.

SECTION 3

SUBLATERAL CROSSING CRITERIA

A. Sublateral Crossing Policy

It is the policy of the District to:

1. Allow a District landowner vehicular access to his property from one side of a canal to the other provided that it is the only alternative for accessing the subject property.
2. Limit the spacing between culverted crossings in a sublateral to not less than 660 feet.
3. ***Drainage Laterals - Limit*** hydraulic losses in its canal systems so that a single crossing, whether culvert or bridge, induces a head loss in the system of not more than 0.10 feet. The head loss shall be calculated using a design flow for the drainage area served by the canal at the crossing location, which includes all the drainage upstream of the proposed crossing. The design flow rate shall be based on the removal rate specified for laterals in the Water Control Plan.
4. The District may require joint use crossings to serve more than one owner when such action will result in fewer structures in District canals.

The District shall establish the drainage area to be used for determination of the design flow at each crossing, and shall evaluate applications for canal crossing permits using the foregoing policy as a guideline.

B. Application for Sublateral Crossing Permit

A permit application for a new, or an existing unpermitted, crossing shall include, as a minimum, the following information on the nearest culverted or bridge crossings both upstream and downstream from the proposed crossing, all provided by the applicant at no expense to the District:

1. The location, in feet, from the nearest existing upstream and downstream crossings to the location of the proposed crossing.
2. For culverts, the: invert elevations (referenced to NAVD-88); diameter; length; material type; wall type; and wall thickness. Three surveyed cross-sections of the sublateral right-of-way: one at the location of the proposed crossing, and one fifty to one-hundred feet upstream and downstream of the proposed crossing. At a minimum, surveyed elevations must be provided at each right-of-way line, sublateral top of bank, toe of slope, and at the lowest point of the sublateral bottom. The location of any existing improvements and their proximity to the project area shall also be shown.
3. Any end treatment or bank revetment proposed as part of the project design.
4. Improvements within the District right-of-way provide sufficient access for District maintenance equipment.

A permit application for replacement of an existing permitted crossing may not need to include all of the information specified above, but replacement of an existing permitted facility may require upgrading in size or adjustment of the invert elevation to comply with the latest adopted standards.

C. Culverted Crossing

A road crossing a District sublateral may be culverted, provided, however, it is no closer than 660 feet from an existing crossing. The culvert must be sized to pass the design flow with a maximum head loss as specified in A, above. No culverted crossing will be permitted in any sublateral within 330 feet of the Laterals.

The culvert design, including invert elevation, diameter, length and end treatment, must be consistent with the water management objectives of the sublateral in which it is installed, as determined by the District.

If a proposed crossing will violate the 660-foot minimum spacing guideline, or result in an unacceptable head loss, then the culvert may be oversized at the option of the District. The District shall determine drainage areas, invert elevations, and culvert oversizing requirements.

Any proposed crossing requiring more than one culvert to pass the design flow under the conditions stated shall not be permitted.

Construction of a culverted crossing shall conform to the requirements of *Exhibits I and II*.

D. Bridges

By resolution adopted by the SRID Board only bridge crossings are permitted over the District's Lateral C canal system. Other laterals and sub-laterals may be considered for non-bridge crossings. This will be reviewed on a case by case basis upon which final determination will be at the Board's discretion.

All bridges crossing District rights-of-way must be designed and certified by a Florida Professional Engineer with certification in bridge design. All bridges crossing District canals must provide for continuous and uninterrupted access for District equipment along both canal berms.

Public road bridges within the District subject to use by the public shall be designed to carry minimum anticipated loads per Florida Department of Transportation Design Standards.

The following minimum horizontal and vertical clearances shall control the design of bridges over District canals:

Horizontal:

Center Span: 25-foot clear bent spacing, measured perpendicular to the canal centerline.

Approach Spans: Minimum 20-foot spacing between bent centers, measured perpendicular to the canal centerline.

Vertical:

Minimum Low Member Elevation: The minimum low member elevation shall be a minimum of one (1) foot above the 100 year peak stage.

All bridges crossing a District right of way shall include the following minimum maintenance and stabilization measures:

1. Sacrificial pilings for weed collection. Note, not required if bridge is a single span design.
2. Hardened revetment consisting of FDOT Rock Rubble Riprap meeting the Ditch Lining specification shall be constructed from the top of bank to the toe of slope. The length of the revetment shall cover 25 feet upstream and downstream and also under the span of the bridge. The geotextile material underlying the riprap revetment shall be anchored at the top of slope and overlap a minimum of four feet of the bedding stone layer.
3. For the span of the bridge and 25 feet on each side, the bottom of the canal shall be lined with a bedding stone layer (FDOT No. 4 stone), a thickness of at least 6 inches.

E. Crossing Criteria Flexibility

The foregoing criteria are to be used as guidelines in designing and evaluating the crossing improvements. Alternative methods of meeting the District's objectives may be considered, depending on the magnitude and nature of resultant impacts on a case by case basis. As stated, the Board may modify these criteria, provided that the primary goal of meeting District water control objectives is not compromised.

SECTION 4

DRAINAGE CONNECTIONS TO DISTRICT CANALS

A. Drainage Connections Existing Connections

Drainage connections with District canals installed prior to the adoption of these Rules may be replaced in like size and kind as a matter of custodial maintenance. However, an application for permit must be submitted to the District and approved prior to initiation of such replacement to assure compatibility of the completed work with the District's objectives including, but not limited to, restoration of the District's rights-of-way in an acceptable manner. Applicable application fees will apply.

New Connections and Enlargement of Existing Connections

New connections and the enlargement of existing connections discharging storm water runoff to District canals shall be designed and installed to limit discharge from the drainage area served by the proposed connection.

Gravity connections, the applicant must demonstrate that the proposed installation will limit storm water runoff to the volumetric equivalent of not more than 2 inches of depth over the area served including the upstream area for any 24-hour period from the 25-year frequency, 72-hour duration rainfall.

For drainage design purposes, the applicant shall contact the District for information concerning canal tailwater time vs. stage elevation for use in preparing the applicant's stormwater management system and the related drainage calculations.

All gravity drainage connections to District canals shall be made in accordance with the details shown on Exhibit III. The applicant shall provide a surveyed cross-section through the canal at the location of proposed connection, demonstrating the proposed configuration within the SRID right-of-way. Design specifications (e.g., bank stabilization) may be imposed in order to prevent bank erosion. The typical drainage connection configuration is shown on Exhibit III.

For all drainage connections, the application submittal shall include calculations to demonstrate that stormwater discharge from the site development is in compliance with current state and federal water quality standards for the South Prong Sebastian River.

Additionally, for all drainage connections and subject to District system limitations noted above, the applicant shall submit calculations demonstrating that the storage volume of the water management facilities complies with the SJRWMD Applicant's Handbook and that the project recovers to the designed control elevation within 12 days of a storm event. For the use of detention and retention areas, the applicant shall include assurance that the soils can provide adequate percolation for the intended purpose.

B. Irrigation Connections

Connections to District canals for irrigation withdrawals shall be designed and installed in a manner that is consistent with the water control, operation and maintenance objectives of the

District. All irrigation connections to District canals shall be of the wet well type located off District right of way, made in accordance with the details shown on Exhibit III. The applicant shall provide a surveyed cross-section through the canal and a plan-view at the location of proposed connection, demonstrating the proposed configuration within the SRID right-of-way. The typical irrigation connection configuration is shown on Exhibit III-D. Controlled irrigation intake works lying within the limits of the canal shall not impair the District's ability to perform normal maintenance operations. Intake works violating this objective shall be removed immediately upon request of the District during the required maintenance period. The District maintains the rights to: access; remove; modify; replace; and operate the irrigation culverts which connect the District Works to the private irrigation system should the land owner be non-compliant with the operation and maintenance protocols of the District.

Aboveground irrigation system improvements including, but not limited to, pumps, pump houses or appurtenant works are prohibited in the District's right-of-way.

All irrigation systems proposing to connect to Works of the District shall have previously been permitted with a Consumptive Use Permit by the SJRWMD. The approved SJRWMD permit shall be submitted along with the required Permit Application documents before review for a connection permit by the District. In an effort to encourage compliance with the consumptive use permits issued by the SJRWMD, the District promotes water conservation through the implementation of BMPs and encourages land owners' to install internal irrigation systems employing low-volume irrigation practices. The District prohibits the use of flood irrigation except during the periods of designated freeze protection.

As noted previously, the District makes no allowance or provision that irrigation water will be available.

C. All Connections

1. All land owner connections to the District's canals or laterals shall have a control structure, i.e.: gated culvert; valve in pipe; boarded riser; etc. on the land owner's side of the District berm. No open pipe (culvert) connections shall be directly connected to the District's canals or laterals.
2. The location of all connections shall be clearly marked by placing a post of contrasting colors over the culvert or pipe. The post shall be placed over the culvert or pipe at the top of the canal slope.
3. The Permittee shall install and maintain connections in a manner that will prevent the introduction of vegetative growth into the District's canal system.
4. The use of private pumps for discharging water into District laterals or canals is prohibited.

SECTION 5

OPEN CHANNEL CONNECTIONS

Because open channel connections disrupt continuous access along canal R-O-W by District maintenance equipment, open channel connections to District canals and laterals shall not be permitted.

SECTION 6

SPOIL DISPOSITION

Earthen material (spoil) excavated from a District canal or right-of-way is the property of the District. The District may dispose of this spoil in a manner which is consistent with the function and purpose of the District.

At the discretion of the District and at the request of the property owner adjacent to the canal from which spoil is to be removed and upon permission of the District, such spoil may be taken by the landowner and used on their adjacent land. The landowner shall be responsible for repairing or restoring any damage to District facilities resulting from the removal of the spoil material is determined by the District. Restoration of the canal, berm and right-of-way shall be per District specifications, see Exhibit IV.

The intent of this policy is to permit a landowner to use adjacent spoil to benefit his land if the District has no need for it. However, each request shall be evaluated and acted upon independently, depending on the needs of the District and its land owners' at the time the request is considered. Such action on behalf of the District may be authorized by the District Administrator and/or District Engineer as per Board delegation.

SECTION 7

UTILITY CONSTRUCTION

A. Aerial Crossings

- 1) Overhead lines shall not be permitted to cross directly over District water control structures. Minimum setback to be determined on a case by case basis. Overhead communications and similar utility crossings over District water bodies are discouraged in favor of directional drill installations and will only be permitted as a variance granted by the Board.
- 2) If permitted by the District Board of Supervisors, overhead communication and similar utility line crossings of District rights-of-ways and Project Works shall have the following minimum vertical clearance as measured to the elevation of the lowest wire:
 - a) 40 feet above the elevation of the canal maintenance berm, as measured from the lowest point of sag; or
 - b) 25 feet above the dike crown;whichever produces the higher wire elevation. Refer to Exhibit V.
- 3) Overhead power lines shall have minimum vertical clearances as shown on Exhibit V. In all cases, minimum vertical clearance shall be measured from the elevation of the lowest point of sag of the line within the District right-of-way or easement to the highest point of the berm or dike crown.

B. Over-Water Crossings

Conventional underground utilities such as water, sewer and gas may be installed over water crossings where attached or immediately adjacent to a Bridge. All other utilities shall install crossings by directional drill. The design and construction of pile-supported or free-span utilities over a District canal at a Bridge shall be subject to the same horizontal and vertical design clearance requirements specified for Bridges.

A cross-section of the canal along the centerline of the proposed work from top-of-bank to top-of-bank, drawn to scale and referenced to NAVD, shall be submitted with the application along with a plan-view at the same scale. The cross-section and plan-view shall be representative of the bridge, canal, maintenance berm and the ground configuration within the canal right-of-way at the proposed crossing location, and shall include sufficient elevation shots to identify all breaks, but with shots not greater than 10-foot increments.

C. Under-Canal Crossings

Open cut installations of under canal crossings are prohibited. Under-canal utility crossings of any type including, but not limited to, communication cables and water or wastewater lines, shall be installed to provide a minimum cover of five (5) feet over the utility line in the Sub-laterals and eight (8) feet in the main Laterals. This cover shall be measured from the top of the utility line's protective encasement to the existing canal bottom, original design section or, if known, ultimate section, whichever produces the lowest installation.

At a minimum, all communication and power lines shall be encased in a continuous length of seamless steel pipe, or approved equivalent, throughout the width of the canal right-of-way. A scaled drawing showing the existing cross-section of the canal and right-of-way with elevations referenced to NAVD, along with a plan-view at the same scale shall be submitted with the application.

Geotechnical information, including boring log(s), shall also be provided. If the issued permit involves the submission of boring logs for the utilization of the District's rights of ways, and/or the crossing of District canal systems, the submitted bore logs as part of the final submission data must include a reference to an elevation datum, and not merely a bore depth indication. Furthermore, submitted bore logs are to be certified by the applicant.

HDPE-type plastic pipe may be used for directional bore installations only. Water, wastewater and similar pressurized lines transmitting non-volatile fluids or gases shall be buried with encasement. The encasement pipe shall meet the requirements of Standard Dimension Ratio (SDR) 17 as a minimum strength. The carrier pipe shall meet the requirements of SDR 11 as a minimum strength. Directional drilled HDPE shall have a tracing wire in conformance with Indian River County standards.

Criteria for the crossing of other types of pressurized lines including, but not limited to, natural gas and steam lines, shall be determined and applied in accordance with Indian River County and industry standards at the time of application evaluation.

Vertical and horizontal spacing with other existing or proposed installations in the project vicinity shall be clearly shown on scaled construction plans. Clearances must meet minimum requirements of the jurisdictional utility or governing agency.

The under-canal crossing shall be marked by the Permittee by placing permanent above-ground markers or signs over the utility at each canal right-of-way line. The markers must identify the type of utility buried and the name and contact telephone number of the utility owner. All markers must be clearly visible, and must be maintained by the Permittee.

D. Utility Paralleling Canal or Right-of-Way

The District discourages the installation of any utility paralleling a canal within the canal right-of-way. Terms and conditions of such an approval, if granted, are solely within the jurisdiction of the Board and subject to the function and operations of the District.

If granted by the Board, the utility paralleling the right of way shall be installed no greater than five (5) feet from the right of way line with a minimum cover of three (3) feet. The utility shall be marked along the right of way line at a minimum spacing of 1,000 feet.

E. Right of Way Use Fee

The use of the District's right of way shall be under a separate license agreement as part of the approved permit process. The fee for utilization of the District's R-O-W is \$1,750 per mile or fraction thereof on an annual basis. The minimal annual fee for such use is \$1,750 per year, and is subject to change.

SECTION 8

OTHER USES AND REQUIREMENTS

A. Water Control Structure Installation and Operation

The installation of a water control feature on a culvert for water conservation and irrigation purposes by a landowner may be allowed by the District. The District shall evaluate each application and the potential impact it may have on its system to assure that such a request is consistent with the District's objectives and does not adversely affect any upstream landowner.

Operation of District-owned water control structures is the sole responsibility of the District. However, cooperative agreements may be made with land owners' or their agents for joint operation of such a structure, provided that it is consistent with the District's objectives. The District shall maintain the right to over-ride such an agreement to fulfill its primary duty and obligation to operate the structure in whatever fashion it deems necessary to meet its objectives.

B. Beehives

The District is required by law to adopt and use methods and processes reasonably adequate to render any place of employment safe and to protect the well-being of its employees. Therefore, the placement of beehives on District rights-of-ways shall not be permitted.

C. Use of District Rights-of Way for Access

The District is provided a right of way for the purpose of operating and maintaining the District's system. Such rights of ways are not presumed to be opened for access by District land owners' except those land owners' adjacent to the right of way and solely for the purpose of access and not obstruct or hinder the capability of the District to operate and maintain the District system. The District may have the need to alter the design of the drainage system in the future, therefore the location of the access is not a perpetual use. March 3, 2004, the District adopted "A Resolution Relating to Legal Access to Private Lands Over Sebastian River Water Control District "District" Rights-Of-Way", (see OR Book 1715, page 887).

D. Fencing of Canal Right-of-Way for Cattle Production

The capability to move water through the District's system of canals is essential for drainage and irrigation purposes. Anything that inhibits or diminishes this capability is contrary to District policy and state law. The uncontrolled movement of cattle across a canal without the benefit of a culvert or bridge crossing is one way that the effectiveness of a canal can be degraded. Not only do cattle carry material into the canal from the canal bank and the berm, but the path they create accelerates erosion, aggravating an already unacceptable condition.

Therefore, it is the policy of the District that the owner of any property used for cattle production adjacent to a District canal must fence that property to prevent the unauthorized movement of cattle across the canal right-of-way. The fence shall be installed fifty (50) feet from the centerline of the right of way or thirty (30) feet from the top of bank, whichever provides the greater distance from the top of bank. Anyone contemplating the installation of fence along a SJID right of way should contact the District to review the fence location before installation.

If cattle owners wish to have cattle cross a canal, it must be over a culverted or bridged crossing meeting the District's regulations. A permit application must be submitted by the applicant and approved by the District before the culvert may be installed.

E. Access Gates in Canal Right-of-Way

A landowner may install an approved swing gate on a District canal berm. Land owners are strongly encouraged to coordinate with the District to ensure the following criteria are met:

1. The gate must be at least fourteen (14) feet wide to accommodate District maintenance equipment.
2. The construction materials and installation methods must be coordinated with and approved by the District.
3. The landowner must interlock his padlock with the District's padlock.
4. The gate must be continuously maintained by the land owner. At all times, the District shall have the right to operate any private gate located on District R-O-W without any interruption. The District maintains the rights to: remove; modify; or replace; any private gate on District R-O-W should the land owner be non-compliant with the operation and maintenance protocols of the District. The District will attempt to provide notification to owner if an issue exists and if not remedied by the owner, the District will remove.

F. Docks/Observation Platforms

District canals are operated and maintained, to the extent possible, to provide for an unobstructed flow way which achieves the permitted level of flood protection. Therefore, the placement of docks, observation platforms or other structures that could restrict flow, catch debris and clog the canal, or constitute a hindrance to the mobilization of District staff and equipment shall not be permitted.

G. Plantings

There shall be NO plantings within the rights-of-way of the District, except for grass and approved ground covering as determined solely by the District. The canal slope is to be graded in accordance with the District's specifications.

H. Windbreaks

Any installation by land owners' serving the purposes of a windbreak shall be installed fifty (50) feet from the centerline of the right of way or thirty (30) feet (horizontal and vertical clearance) from the top of bank of sub-laterals, whichever provides the greater distance from the top of bank. SRID lateral right of ways vary in width and setbacks may exceed those of sub-laterals, and will be addressed on a case by case basis. Such windbreaks installation shall be maintained by the landowner. Failure to maintain windbreaks which then become an obstruction to the District's ability to perform operations and maintenance activities will be cause for removal by the District in accordance with State Statutes.

**SEBASTIAN RIVER IMPROVEMENT DISTRICT
PERMIT INFORMATION AND CRITERIA MANUAL**

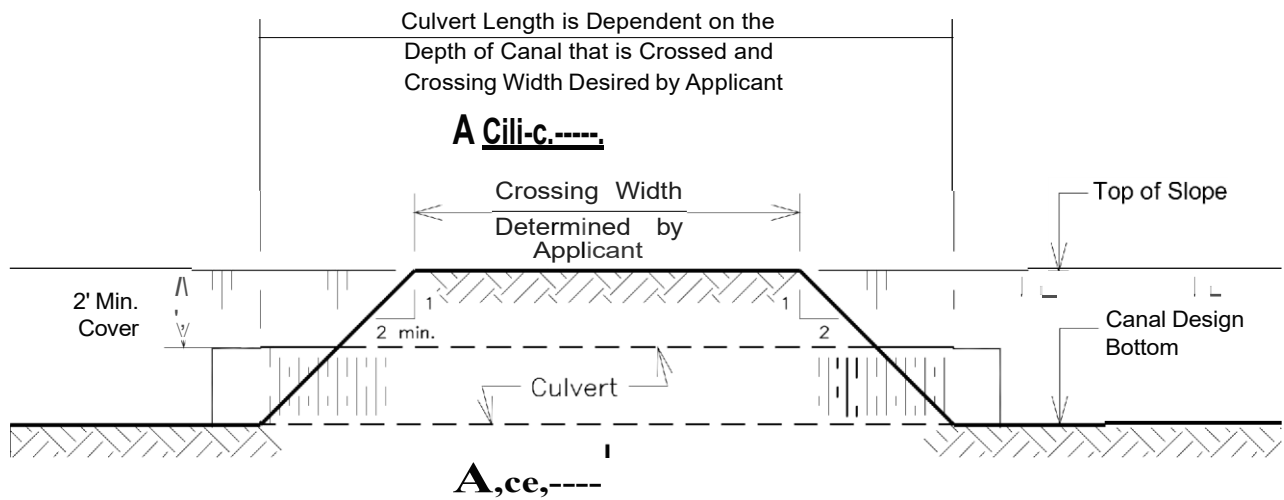
EXHIBIT 'T'

DESIGN DISCHARGE FOR CULVERTED CROSSINGS IN DRAINAGE SUBLATERALS

CULVERT DIAMETER		MAXIMUM ALLOWABLE AREA SERVED
(INCHES)		(ACRES)
CMP	RCP	
18	15	10
24	18	20
30	24	40
36	30	60
42	36	80
48	42	120
60	48	160
60	60	240
66	66	300

Notes:

1. Design discharge for culvert crossings of drainage sublaterals shall be based on a maximum flow of four inches per day over the drainage area. The rate of four inches per day is equivalent to 107.56 cubic feet per second per square mile (CSM).
2. The District's 2 inch/day volume limitation criteria shall be applied to all District landowners' on-site stormwater management system(s) at the connection to the District's system.
3. Head losses as a result of a culvert crossing shall not exceed 0.1 foot, based on 40 L.F. of pipe.
4. Each culvert shall be set at an elevation determined by SRID to provide a uniform slope appropriate for the sub-lateral.
5. Alternate culvert diameters may be approved per the review of the District Administrator and District Engineer for compliance with minimum design criteria.

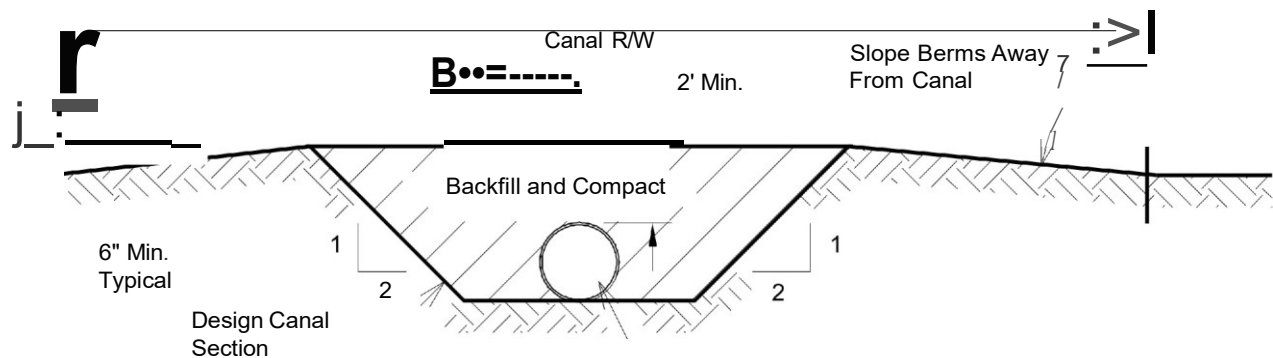


SECTION B-B

Not to Scale

NOTES:

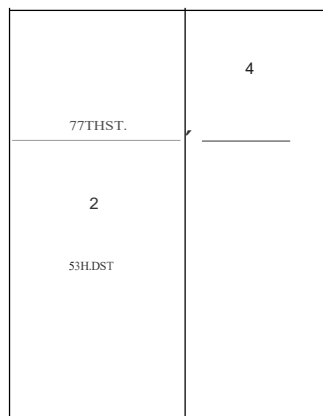
1. Concrete or sand-cement endwalls may be used to shorten the culvert length. All work shall be in accordance with the latest Florida D.O.T. Specifications.
2. All disturbed slopes, berms and other areas shall be seeded, fertilized and mulched (or sodded) in accordance with the latest Florida D.O.T. specifications within 10 days of the completed activity.
3. Drainage shall not be blocked or impaired at any time.
4. The applicant shall notify the Sebastian River Improvement District Office 24 hours prior to construction of the crossing.



SECTION A-A

Not to Scale

Indicate Location of Proposed Improvement Below:



SEC. ___, TWP. ___, RGE. ___

VICINITY PLAN

SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

CULVERTED SUBLATERAL CROSSING

DATE:

APPLICATION
NUMBER:

SUBLATERAL
NAME:

APPLICANT:

EXHIBIT "II"

**SEBASTIAN RIVER IMPROVEMENT DISTRICT
PERMIT INFORMATION AND CRITERIA MANUAL**

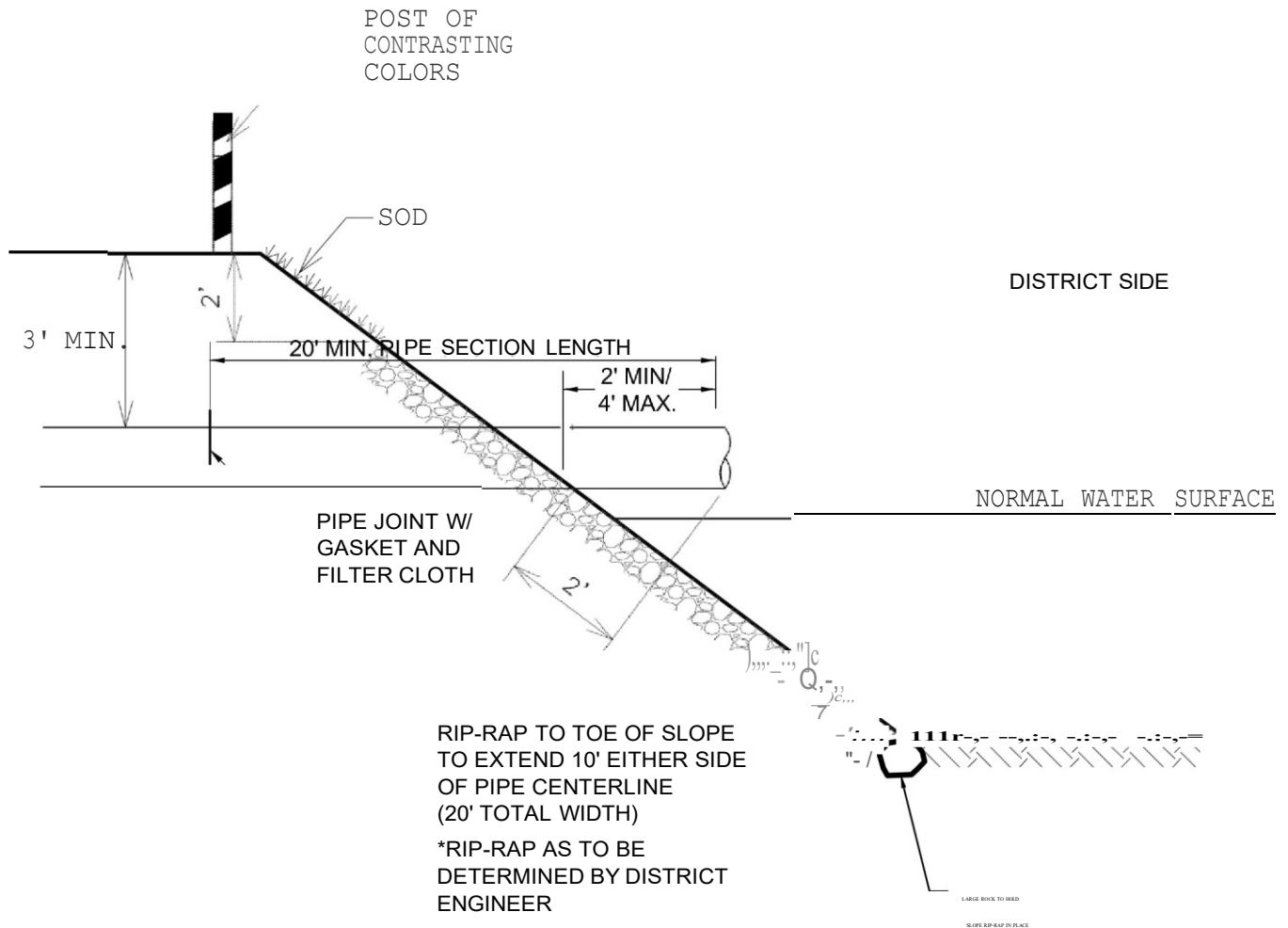
EXHIBIT III – A

DESIGN DISCHARGE FOR CULVERT CONNECTIONS TO DRAINAGE SUBLATERALS

CULVERT DIAMETER		MAXIMUM ALLOWABLE AREA SERVED
(INCHES)		(ACRES)
CMP	RCP	
18	15	20
24	18	40
30	24	60
30	24	80
36	30	120
42	36	160
48	42	240
54	48	300

Notes:

1. Design discharge for culvert connections to drainage sublaterals shall be based on a maximum flow of two inches per day over the drainage area. The rate of two inches per day is equivalent to 53.78 cubic feet per second per square mile (CSM).
2. Head losses as a result of a culvert crossing shall not exceed 0.1 foot, based on 40 L.F. of pipe.
3. Drainage culverts shall be of sufficient length to extend from a point in the canal, determined by the District Administrator, to a point in the landowner's canal without reducing the width or impairing the use of the canal right of way or maintenance berm.
4. Each culvert shall be set at an elevation which ensures that it will be fully submerged during its use, thereby utilizing the full cross sectional area of the culvert.
5. All drainage culvert connections shall be a minimum diameter of 15 inches.
6. Alternate culvert diameters may be approved per the review of the District Administrator and District Engineer for compliance with minimum design criteria.



SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

CONNECTION DETAIL

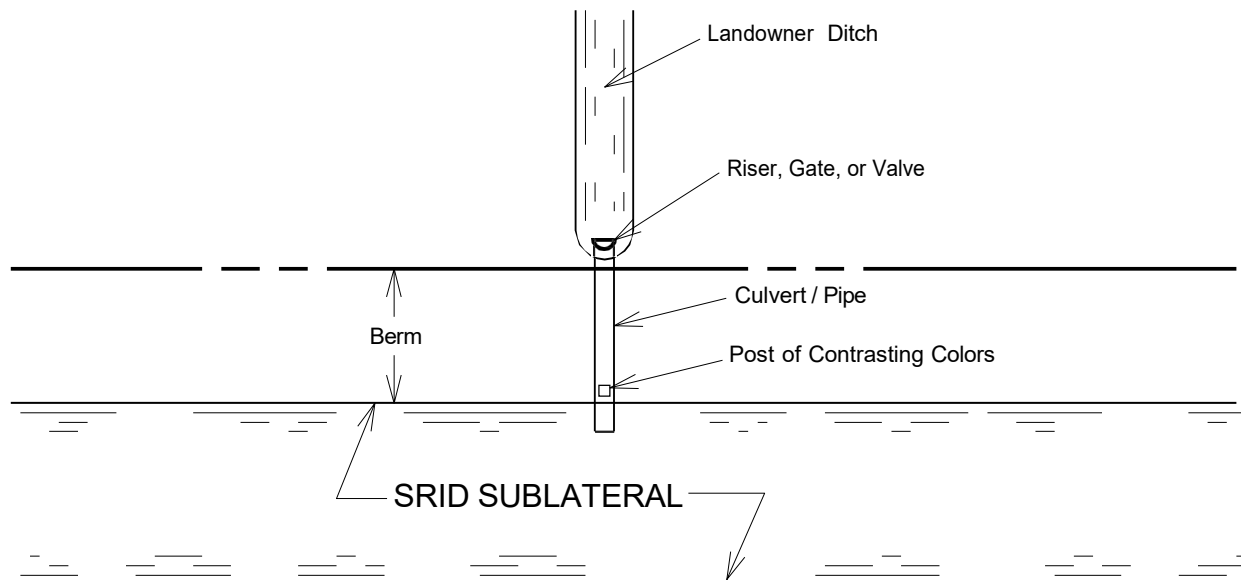
DATE:

APPLICATION
NUMBER:

SUBLATERAL
NAME:

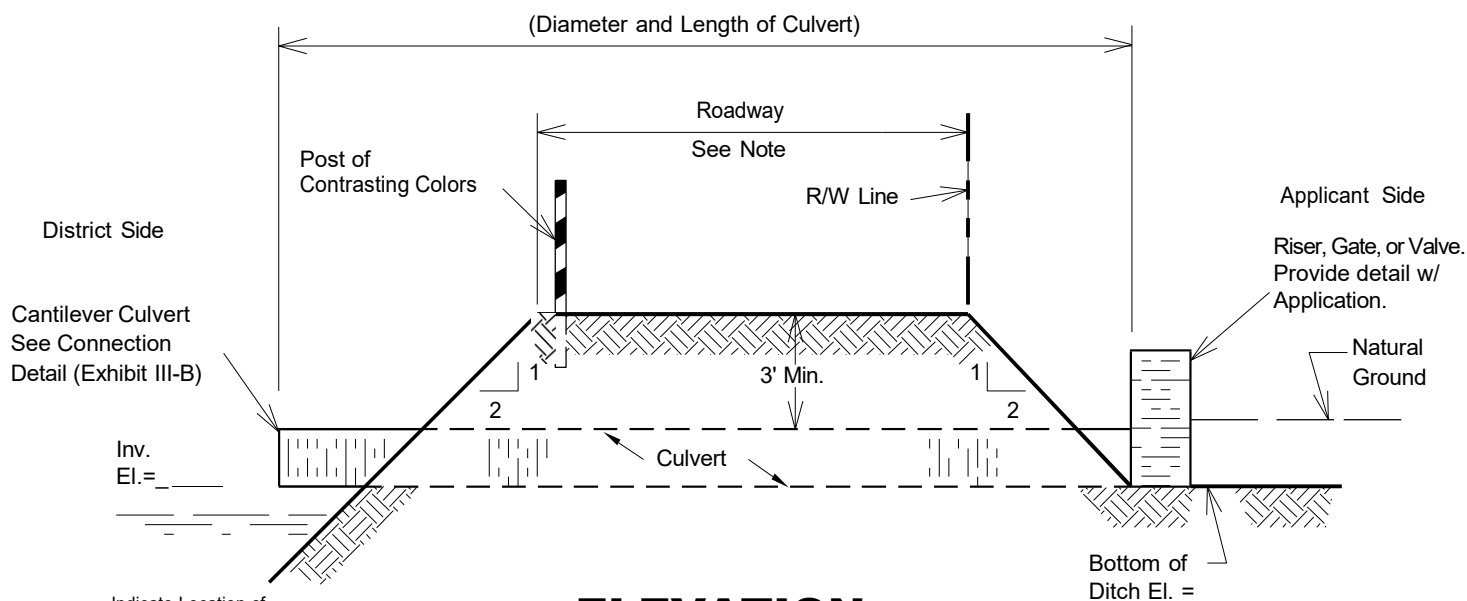
APPLICANT:

EXHIBIT "111-8"



PLAN VIEW

Not to Scale



Indicate Location of
Proposed Improvement Below:

3	4
77TH ST.	
2	
53RD ST.	
1	

SEC. ____, TWP. ____, RGE. ____.

VICINITY PLAN

ELEVATION

Not to Scale

NOTES:

- Back of Roadways shall be the greater of 25' from Top of Bank or 50' from centerline of Right of Way.
- All elevations refer to N.A.V.D. 88

SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

TYPICAL PLAN AND PROFILE OF CONNECTIONS TO DRAINAGE SUBLATERALS

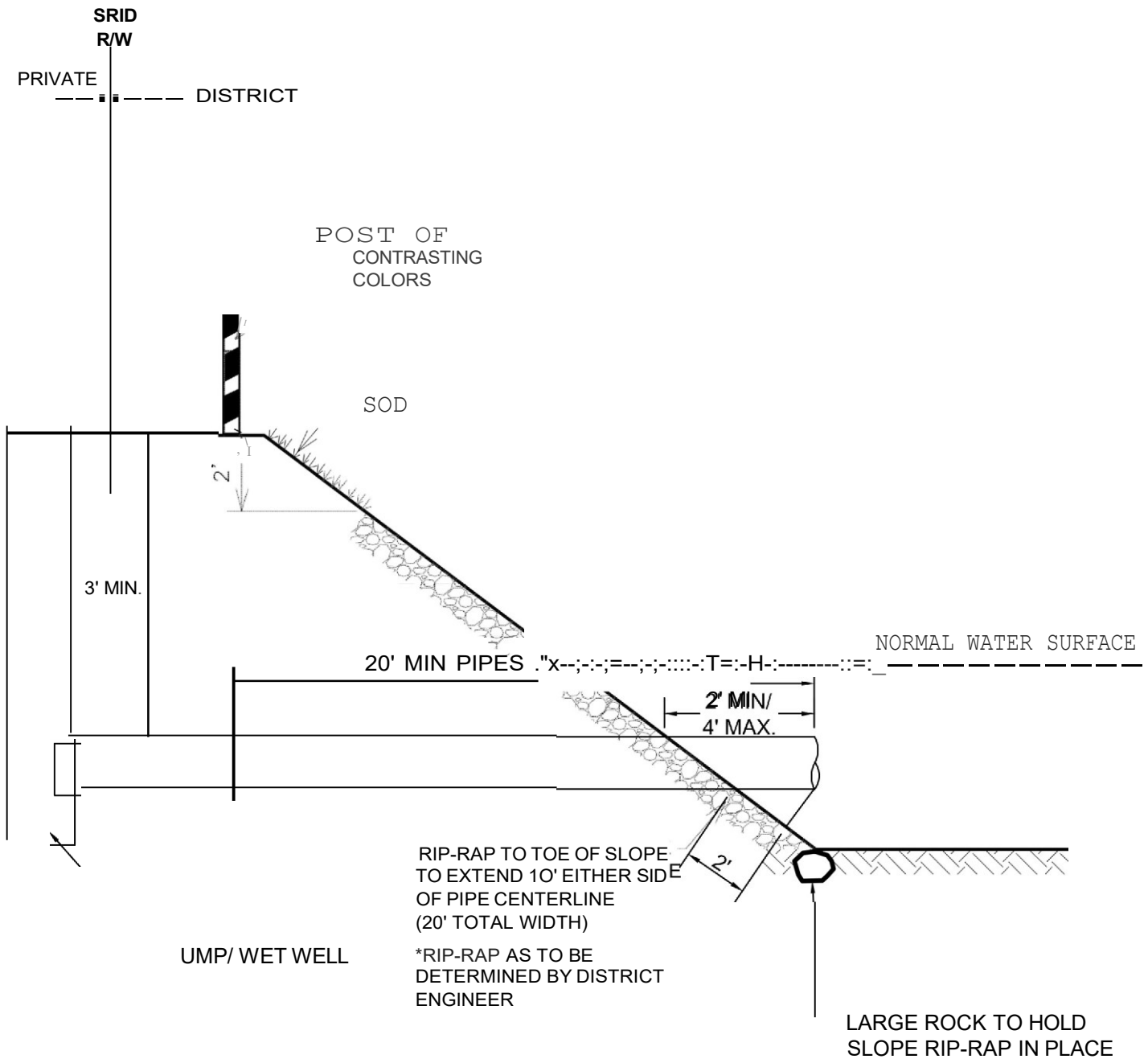
DATE:

APPLICATION
NUMBER :

SUBLATERAL
NAME:

APPLICANT:

EXHIBIT "III-C"



SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

IRRIGATION CONNECTION DETAIL

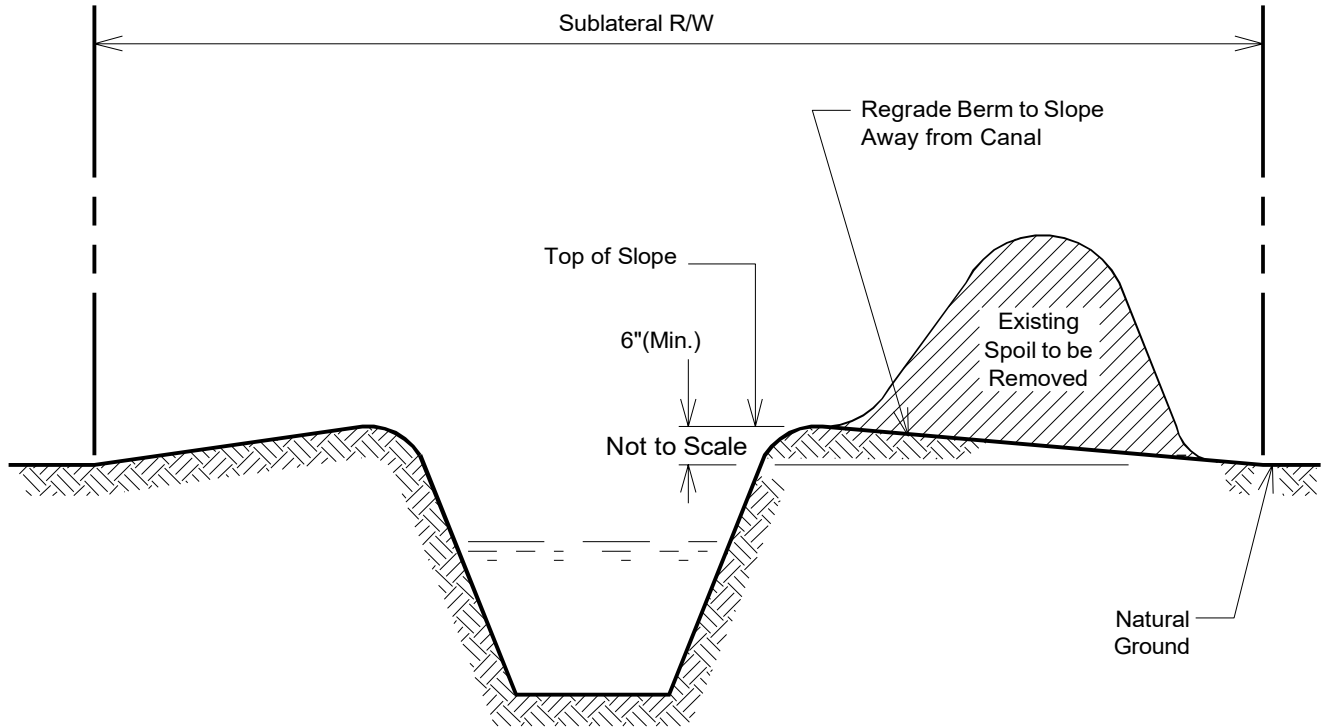
DATE:

APPLICATION
NUMBER:

SUBLATERAL
NAME:

APPLICANT:

EXHIBIT "111-D"



NOTES:

1. All disturbed areas shall be grassed in kind within 10 days of the completed activity.
2. Grade to blend the disturbed area with the areas on both sides.

Indicate Location of
Proposed Improvement Below:

3	4
77TH ST.	
2	
53RD ST.	
1	

SEC. _____, TWP. _____, RGE. _____

VICINITY PLAN

ELEVATION

Not to Scale

SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

RESTORATION OF SUBLATERAL BERMS

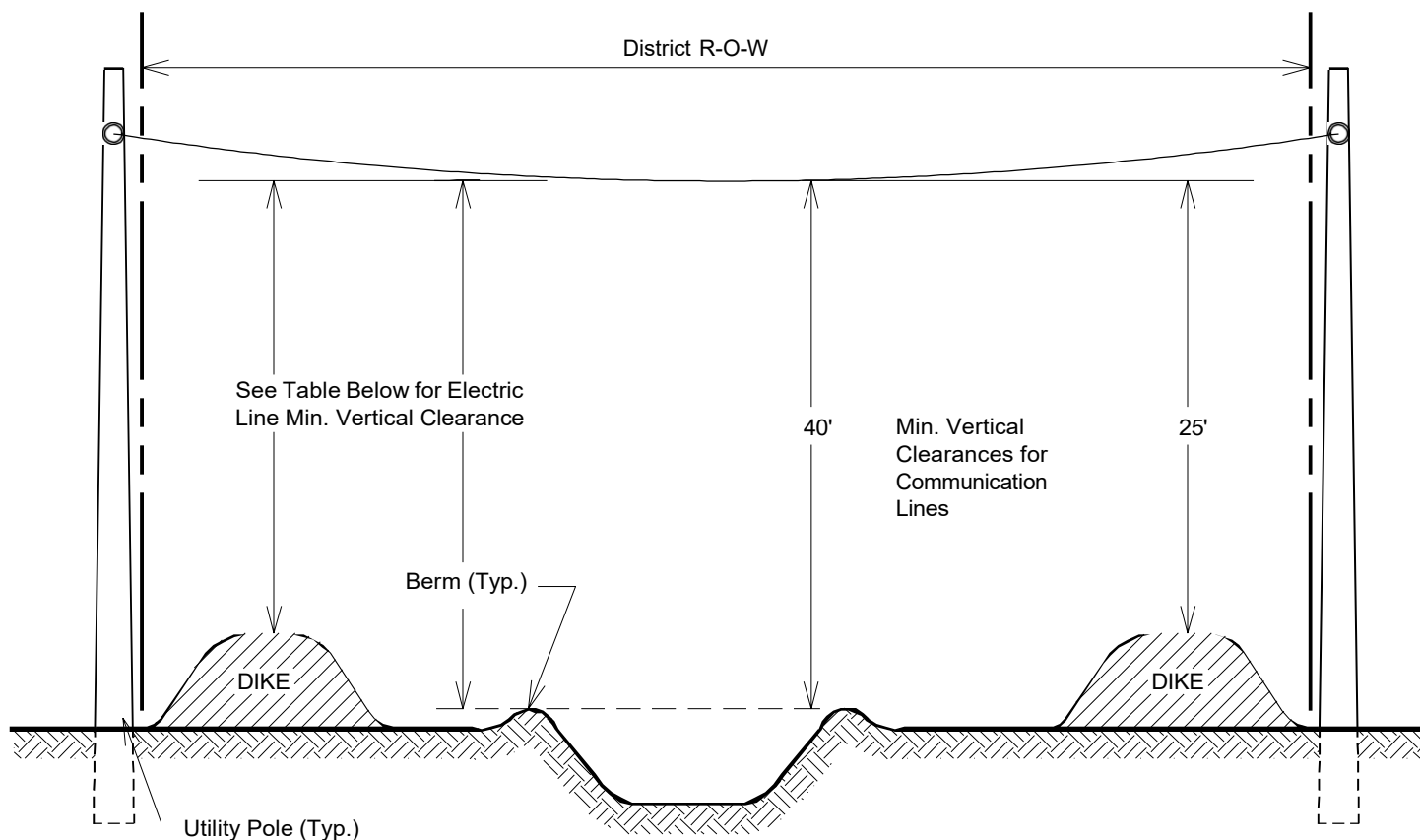
DATE:

APPLICATION
NUMBER :

SUBLATERAL
NAME:

APPLICANT:

EXHIBIT "IV"



ELEVATION

Not to Scale

TABLE OF ELECTRICAL VERTICAL CLEARANCES

Crossing Over	Voltage Of Crossing Circuit						
	Phase To Phase	Guys (Grounded)	69kV	115kV	138kV	240kV	500kV
	Phase TO Ground		50kV & Under	67kV	80kV	138kV	289kV
Minimum Vertical Clearance From Berm		40'-0"	45'-0"	45'-8"	46'-2"	48'-0"	54'-0"
Minimum Vertical Clearance From Dike		25'-0"	25'-0"	25'-0"	25'-0"	25'-0"	35'-0"

NOTES:

- Overhead lines shall not be permitted to cross directly over District water control structures. Overhead communications and similar utility crossings over District water bodies are discouraged in favor of directional drill installations and will only be permitted as a variance granted by the Board.
- Poles Shall Not Be Located Within District Right-Of-Way.
- Clearances Shown Shall Be With Wires At Maximum Design Temperature And Final Sag.

Indicate Location of
Proposed Improvement Below:

3	4
77TH ST.	
2	
53RD ST.	
1	

SEC. _____, TWP. _____, RGE. _____

VICINITY PLAN

SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

OVERHEAD UTILITY CROSSING

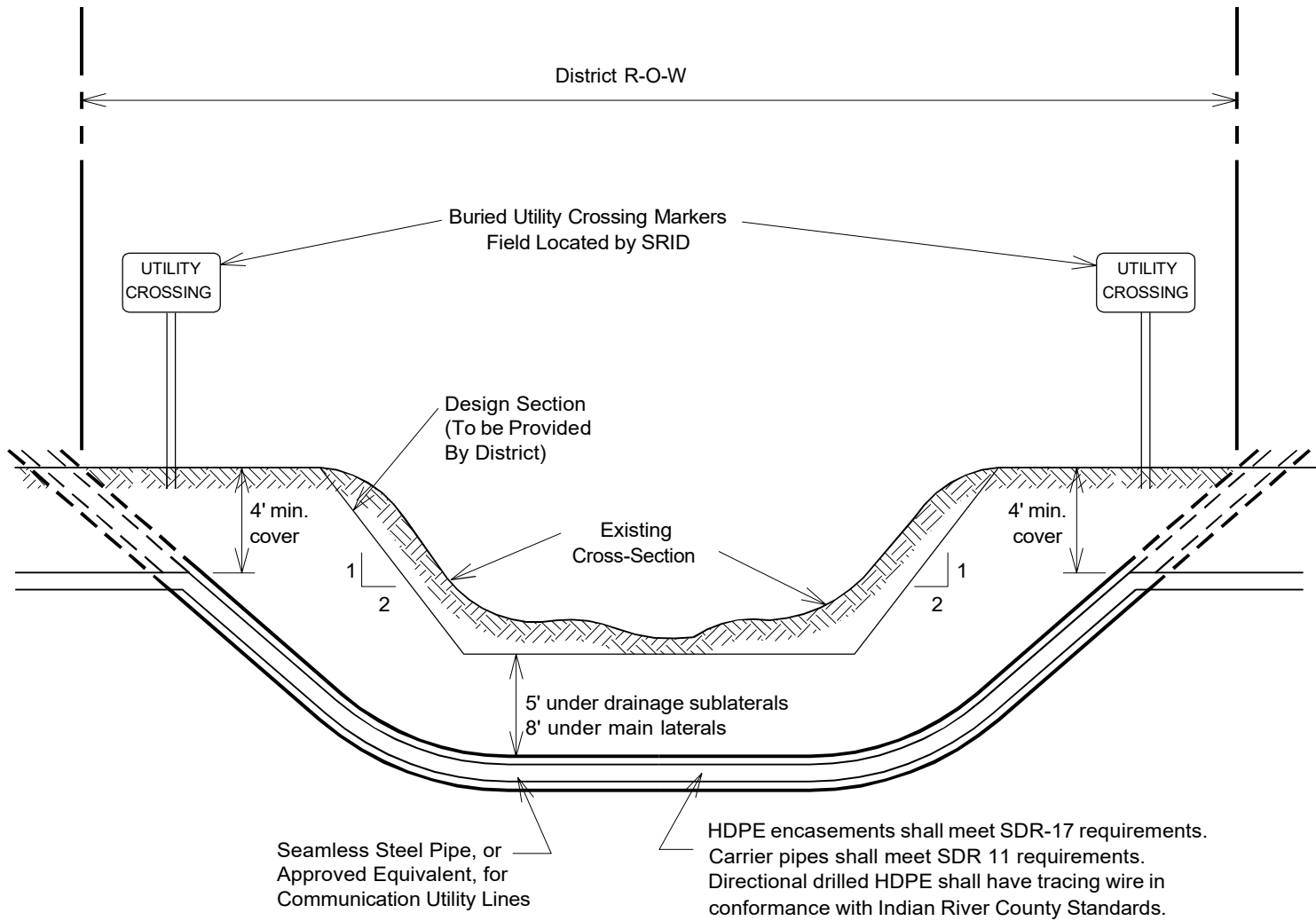
DATE:

APPLICATION
NUMBER :

SUBLATERAL
NAME:

APPLICANT:

EXHIBIT "V"



* As Measured to the Top of Pipe or Top of Encasement, Whichever is Higher.

NOTES:

- Open cut installations under lateral or sublateral crossings are prohibited.
- Cover shall be measured from the top of the utility line's protective encasement to the existing canal bottom, original design section or, if known, ultimate design section, whichever produces the lowest installation.

ELEVATION

Not to Scale

Indicate Location of Proposed Improvement Below:

3	4
77TH ST.	
2	
53RD ST.	
1	

SEC. ____, TWP. ____, RGE. ____

VICINITY PLAN

SEBASTIAN RIVER IMPROVEMENT DISTRICT

SKETCH TO ACCOMPANY

UNDER CANAL UTILITY CROSSING

DATE:

APPLICATION
NUMBER :

SUBLATERAL
NAMES:

APPLICANT:

EXHIBIT "VI"

2± MILES

COUNTY HWY 512

DISTRICT OWNED
FLOODPLAIN

LATERAL "C" CONTROL STURCTURE

LATERAL "L" CONTROL STRUCTURE

COUNIY HWY 510

R12E

WAIWISO ROAD

60" FLASHBOARD RISER

R13E

C2W

C3W

R14E

HOBART RD. 77TH ST.

C4W

C4E

LUTHER RD. 73RD ST.

C5W

C5E

N. WINIER BEACH RD. 69TH STREET

C6W

S WINTER BEACH ROAD 65TH ST.

C7W

PECAN RD. 61ST ST.

C8W

STORM GR<M RD. 57TH ST.

C9W

KINGSBERRY RD. 53RD ST.

C10W

C10E

LINDSEY RD. 49TH ST.

C11W

C11E

N GIFFORD ROAD 45TH ST.

C12W

C12E

GIFFORD ROAD 41ST ST.

25

C13E

BARBER AVE. 37TH ST.

C14W

C14E

CHERRY LN. 33RD ST.

C15W

C15E

WALKER AVE. 26TH ST.

90TH AVENUE

20TH ST

74TH AVENUE

Wabasso

KINGS HWY 50TH AVE.

US HWY 1

EXHIBIT VII SEBASTIAN RIVER IMPROVEMENT DISTRICT OVERALL MAP

0 1500 3000
SCALE: (1 Inch = 3000 Feet)



LEGEND

- LATERAL/SUBLATERAL MAINTAINED BY DISTRICT
- LATERAL/SUBLATERAL NOT MAINTAINED BY DISTRICT
- DISTRICT R/W ONLY, NO SUBLATERAL
- NO DISTRICT OWNERSHIP OR R/W

25
ft